



## Religiosity Among Muslim Adolescents According to Gender and School Type

Adriana Ortega\* and Steven Eric Krauss

*Institute for Social Science Studies, Universiti Putra Malaysia, Putra Infoport, 43400 Serdang, Selangor, Malaysia*

### ABSTRACT

This paper aims to present a preliminary picture of the first stage of an ongoing study on religiosity, spirituality and positive youth development among Muslim high-school students. The sample studied consisted of 895 students who attended secondary schools in the greater Kuala Lumpur region in Malaysia. The Exploratory factor analysis yielded an eight-factor solution with moderate-to-high internal consistency. The results of the statistical analyses indicated that Muslim female and male students scored significantly differently in these eight factors. When comparing the type of secondary schools attended, significant mean differences in students' scores were also observed. Although these results are based on preliminary analysis, they underline important areas for future research on religiosity, spirituality and positive development among Muslim youth.

*Keywords:* Muslim youth, spirituality, religiosity, youth development

### INTRODUCTION

Religious and spiritual beliefs yield positive impact on a wide range of behavioural outcomes among youth (Lutz, Slagter, Rawling, Francias, Greischar, & Davidson, 2009; Templeton & Eccles, 2006; Benson, Scale, Sesma & Roehlkepartain, 2005; Dowling, Gestsdottir, Anderson, von Eye,

Almergi & Lerner, 2004). More specifically, some authors have found that religious and spiritual beliefs have a buffering effect against risk behaviours and a fostering effect on positive development and pro-social behaviours (Krauss *et al.*, 2012; Wagener, Furrow, King, Leffert & Benson, 2003; Donahue & Benson, 1995).

Nevertheless, the research on spirituality, religiosity and positive youth development remains limited; to a great extent a "Western Judeo-Christian" framework that focuses on a general conceptualisation of spirituality

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##### *E-mail address:*

[adryortegaro@gmail.com](mailto:adryortegaro@gmail.com) (Adriana Ortega)

\* Corresponding author

(Wilde & Joseph, 1997; Ghorbani *et al.*, 2000; Lippman & McIntosh, 2010) forms the base framework for existing research. Thus, authors have underlined the need for measurements and scales for religiosity and spirituality that reflect the understanding or perception of religion and spirituality of Muslim populations and/or youth (Amer & Hood, 2007; Krauss, Hamzah, Suandi, Noah, *et al.*, 2006; Krauss, Hamzah, Suandi, Noah, *et al.*, 2005). Earlier studies have also pointed out the importance of using research-based concepts and measurements of religiosity and spirituality relevant to non-Judeo-Christian faiths (Amer & Hood, 2007; Ghorbani *et al.*, 2000; Wilde & Joseph, 1997).

In order to address this gap, Azimi and colleagues (2007) proposed a Muslim Religiosity Measurement Model which defines religiosity as two main constructs that reflect the Islamic perspective, namely, “Islamic Worldview” and “Religious personality”. Based on these constructs, they developed the Muslim Religiosity Personality Inventory (MRPI) (Azimi *et al.*, 2007; Krauss, *et al.*, 2006; Krauss, *et al.*, 2005).

An in-depth review of the local literature revealed two known studies in Malaysia that have looked at religiosity and spirituality among Muslim youth; one was carried out using a sample of university students (Imam *et al.*, 2009) and the other consisted of a cluster sampling approach that included youth from six different social strata: IPTA students’ political party members, youth organisation members,

factory workers; youth at-large and youth in drug rehabilitation centres (*pusat serenti*) (Krauss, *et al.*, 2006). In addition, a third recently completed study carried out by Krauss, Ismail, Suandi, Hamzah, *et al.* at the Institute for Social Science Studies (Universiti Putra Malaysia), explored religiosity correlates among high-school (Form 4) students in the Klang Valley. This study is the basis of this paper. The objective of this paper is to explore the underlying factor structure of the items used to measure religiosity and to examine potential differences in the mean scores in terms of gender and type of school attended. The MRPI was initially developed as a Muslim religiosity measure for young people (Azimi *et al.*, 2007). However, as previously reported versions of the MRPI have exclusively been used with older samples of youth (see Azimi *et al.*, 2007; Krauss *et al.*, 2006), the factor structure for younger Muslims in Malaysia remains unexplored. This study, therefore, aims to explore and document the factor structure of the revised MRPI instrument (Krauss *et al.*, 2012) for younger Malaysians.

## METHODS

A cross-sectional study that examined spiritual intelligence and religiosity among Muslim youth and their relationship with positive (i.e. prosocial and thriving behaviours) and negative (risk behaviours) developmental outcomes provided the data used for this paper. After approval from the Malaysian Ministry of Education, questionnaires were distributed to 16 public

secondary schools located in the Klang Valley. The sample drawn was from both national (SMK)<sup>1</sup> and religious secondary schools (SMA)<sup>2</sup>.

### *Sample*

The study sample consisted of 16- and 17-year-old students. The research team used a purposive sample consisting of groups of at least 50 students with diverse academic performance levels and an equal mix of females and males from each of the participating schools. The total sample consisted of 895 Form 4 students, of whom 66.5% were from national secondary schools and 33.5% from religious schools. The majority of the students participating (98.1%) were Malay, and 50.3 % of the sample were females. Table 1 summarises the demographic characteristics of the sample.

### *Measures*

Although the questionnaire included multiple measures, this paper focuses only on the Islamic religiosity measures. Islamic religiosity was measured using the Muslim Religiosity Personality Inventory (MRPI) (Krauss *et al.*, 2006), which consists of items measuring religious worldview according to the creed (*aqidah*) of traditional Sunni Islam, and behaviours in line with Islamic teachings that reflect that worldview. Example items include: “All human activities must be done for the sake of Allah”; “Allah swt will not forgive people who commit sins intentionally”; “I make an effort to understand Islamic law”; “I

invite others to perform obligatory prayers (*solat*)”; “I respect other people’s opinions”; and “I do not neglect my friend’s dignity”.

Participants indicated their level of agreement with the statements on a 6-point Likert-like scale. The psychometric properties of the MRPI are provided elsewhere (Krauss, *et al.*, 2006). The questionnaire used both English and Malay for all items on it.

### *Data analysis*

Descriptive statistics and principal component analysis (PCA) were conducted using SPSS v. 16.0 (SPSS Inc., Chicago, IL, USA). Cronbach alpha and inter-item correlations assessed the psychometric evaluation of the resulting sub-scales. T-test was used to explore possible differences in terms of participants’ scores on the resulting sub-scales based on gender and type of school they attended.

## **RESULTS**

Table 1 summarises the demographic characteristics of the sample. In terms of age and ethnicity there was not much variation, as the sample was rather homogeneous: 93.5% of the sample were 16 years old and 98.1% of the participants indicated that they were Malay. Most of the participating students (75.7%) reported to have both parents at home, and 20.7% of the students indicated that their monthly family income was between RM1001 and RM2000, while 22.9% reported their monthly family income as being more than RM5000.

TABLE 1  
Demographic Characteristics

	N	%		N	%		N	%
Gender			Age			Monthly family income		
Female	450	50.3	16 years old	837	93.5	Less than RM500	17	2.3
Male	445	49.7	17 years old	58	6.5	RM501- RM1000	125	17.2
Total	895		Total	895		RM1001-RM2000	150	20.7
Ethnicity			Family structure			RM2001- RM3000	97	13.4
Malay	878	98.1	Parents not at home	63	7.4	RM3001- RM4000	71	9.8
Chinese	5	.6	Parents at home	614	72.5	RM4001- RM5000	100	13.8
Indian	4	.4	Only mother at home	148	17.5	More than RM5000	166	22.9
Other	8	.9	Only father at home	22	2.6	Total	726	Total
Total	895		Total	847				

This study utilises the Principal Component Analysis (PCA) to explore the underlying factor structure of the MRPI. Following Ferguson and Cox's, (1993) and Field's (2002, 2009) recommended procedures for Exploratory Factor Analysis (EFA), a 'pre-analysis check' was carried out to make sure that the criteria to conduct a PCA were met. The sample size of the study was 895, and all 48 Islamic religiosity items had neither skew and/or kurtosis coefficients exceeding the  $\pm 2.0^3$  range (Muthén & Kaplan, 1985). The Kaiser-Meyer-Olkin (KMO=.92) test confirmed the sampling adequacy for the analysis, and that all KMO values for the individual items were well above the accepted limit of .5 (Field, 2009). In addition, Bartlett's Test of Sphericity ( $\chi^2$  (1128) = 11242.168 p. <.001.) indicated that the correlations between items were large enough for PCA (Field, 2009).

The PCA with oblique rotation (direct oblimin) yielded a 22-factor solution. After extracting the items that did not load on any of the factors and/or deleting factors

with only one item, it was found that the solution revealed a 10-factor structure with a minimum item-factor loading of .40; KMO=.904, and Bartlett's Test of Sphericity (7800) = .00084 p <.05. Based on the internal consistency and reliability tests, two factors were dropped. Table 2 summarises the internal consistency reliability coefficients (Cronbach's alpha) for the remaining eight factors. Names were given to the factors based on the meaning of their constituent elements; factor 1 was named Striving; factor 2: Universality; factor 3: Integrity; factor 4: Respect; factor 5: Surrendering; factor 6: Trust; factor 7: Humility; and factor 8: Practical Spiritual Consciousness.

Although Cronbach's  $\alpha$  (alpha) coefficients for the Universality and Humility sub-scales were lower than .7, their corrected item-total correlations were above r.3, which indicates an acceptable internal consistency. Similarly, the inter-item-correlations for factors with only two items, Respect, Surrendering and Trust, were also greater than 0.3, indicating a

TABLE 2  
Component Correlations and Psychometric Properties

	1	2	3	4	5	6	7	8	No. items	Mean	SD	Reliability
1 Striving									7	29.78	6.59	$\alpha$ .90
2 Universality	.13**								3	13.93	3.46	$\alpha$ .59
3 Integrity	.34**	.16**							3	12.68	3.06	$\alpha$ .80
4 Respect	.33**	.13**	.48**						2	9.66	1.91	r .40
5 Surrendering	.27**	.20**	.21**	.21**					2	10.16	2.01	r .45
6 Trust	.55**	.12**	.31**	.34**	.23**				2	9.89	1.84	r .53
7 Humility	.43**	.16**	.58**	.41**	.22**	.35**			3	13.38	2.86	$\alpha$ .63
8 Practical Spiritual Consciousness	.78**	.14**	.32**	.28**	.24**	.57**	.40**		3	11.90	3.09	$\alpha$ .72

\*\* 0.01 level (2-tailed). Listwise N=891

moderate consistency of these factors. The associations between the resulting factors were assessed using a correlation analysis.

As observed in Table 3, the results indicate a significantly high association between the Striving and Practical Spiritual Consciousness factors ( $r=.78$ ,  $p<.05$ ) while significantly low associations were found between Universality and Striving ( $r=.13$ ,  $p<.05$ ), Universality and Integrity ( $r=.16$ ,  $p<.05$ ), Universality and Respect ( $r=.16$ ,  $p<.05$ ), Universality and Trust ( $r=.12$ ,  $p<.05$ ) and Universality and Humility ( $r=.16$ ,  $p<.05$ ).

Independent T-tests assessed the mean differences between female and male students and between students from religious schools and national schools. Tables 3 and 4 present the descriptive statistics for the factors by type of school and by gender respectively.

The results show that overall, female students scored significantly higher than male students on Universality ( $t(893)=4.13$ ,  $p<.05$ ); Integrity ( $t(891) 2.47$ ,  $p<.05$ ); Respect ( $t(854.16)4.44$ ,  $p<.05$ ); Trust ( $t(891)3.66$ ,  $p<.05$ ); and Humility ( $t(891) 2.10$ ,  $p<.05$ ); while male students scored higher on Practical Spiritual Consciousness ( $t(891)-2.71$ ,  $p<.05$ ). However, there were no significant gender differences found for Striving and Surrendering.

The results indicated that on average, students from religious schools scored significantly higher on all factors in comparison to students from national schools. More specifically, students from religious schools scored higher on Striving ( $t(686.24) 7.39$ ,  $p<.05$ ); Universality ( $t(746.77) 12.90$ ;  $p<.05$ ); Integrity ( $t(761.49) 5.09$   $p<.05$ ); Respect ( $t(702.4) 2.93$ ,  $p<.05$ ); Surrendering ( $t(742.28) 8.61$ ,  $p<.05$ ),

TABLE 3  
Descriptive & Mean Differences by Gender

Factors	Female				Male				t	df	Sig
	N	Mean	SD	S E	N	Mean	SD	S E			
Striving	450	29.43	6.64	.31	443	29.70	6.82	.32	-.59	891	NS
Universality	450	14.36	3.17	.15	445	13.44	3.52	.17	4.13	893	<.05
Integrity	450	13.13	2.88	.14	443	12.63	3.12	.15	2.47	891	<.05
Respect	450	9.92	1.72	.08	443	9.35	2.09	.10	4.44	854.16	<.05
Surrendering	450	10.18	2.04	.10	443	9.96	2.20	.10	1.52	891	NS
Trust	450	10.08	1.70	.08	443	9.62	1.98	.09	3.66	868.02	<.05
Humility	450	13.52	2.83	.13	443	13.12	2.97	.14	2.10	891	<.05
Practical spirituality consciousness	450	11.53	3.15	.15	443	12.10	3.12	.15	-2.71	891	<.05

TABLE 4  
Descriptive & Mean Differences by School Type

Factors	SMA (religious schools)				SMK (National school)				T-test for equality of Means		
	N	Mean	SD	S E	N	Mean	SD	S E	t	df	Sig
Striving	300	31.73	5.90	.34	593	28.47	6.86	.28	7.39	686.24)	<.05
Universality	300	15.66	2.61	.15	595	13.02	3.37	.14	12.90	746.77	<.05
Integrity	300	13.53	2.43	.14	593	12.55	3.21	.13	5.09	761.49	<.05
Respect	300	9.89	1.70	.10	593	9.51	2.03	.08	2.93	702.4	<.05
Surrendering	300	10.84	1.72	.10	593	9.68	2.20	.09	8.61	742.28	<.05
Trust	300	10.12	1.61	.09	593	9.72	1.96	.08	3.30	712.82	<.05
Humility	300	14.13	2.47	.14	593	12.91	3.02	.12	6.48	716.13	<.05
Practical spirituality consciousness	300	13.17	2.53	.15	593	11.13	3.21	.13	10.37	738.09	<.05

Trust ( $t(712.82) 3.30, p<.05$ ); Humility ( $t(716.13) 6.48, p<.05$ ); and Practical Spiritual Consciousness ( $t(738.09) 10.37, p<.05$ ).

## CONCLUSION

A current study being carried out by Krauss, Ismail, Suandi, Hamzah, *et al.*, at the Institute for Social Science Studies (Universiti Putra Malaysia) forms the basis of this paper. The

aims of the present paper were to explore the factor structure of the items used to measure religiosity among Muslim youth and to examine potential differences in religiosity among Muslim youth in terms of gender and type of school attended (e.g. national and religious schools).

The exploratory factor analysis yielded an eight-factor solution with moderate to high internal consistency. The resulting



factors were named: Striving; Universality; Integrity; Respect; Surrendering; Trust; Humility; and Practical Spiritual Consciousness. The correlation analysis found very low associations between Universality and a few other factors, with one particularly high association between Striving and Practical Spiritual Consciousness. Due to the descriptive nature of this paper, these associations were not explored further, but future studies will look more closely into the possible explanations and implications of these associations.

The results from the Independent t-tests showed that Muslim students attending religious schools scored significantly higher on all 8 factors in comparison to Muslim students from national schools. Although these results might be in line with anecdotal data, to the authors' knowledge, no published empirical studies exist that look specifically at differences in terms of spirituality, religiosity and/or religious personality between 'secular' and religious schools. Thus, there is a need to further explore these differences and their implication for positive Muslim youth development.

Results from the independent t-tests also indicated significant gender differences in terms of religiosity among students participating in the study. These findings are in line with many previous studies, despite the fact that most of them used the "Western, Judeo-Christian" theological framework. However, the results presented here specifically showed that Muslim female students scored significantly higher than Muslim male students on factors such as Universality, Integrity, Respect, Trust and

Humility while male students scored higher on Practical Spiritual Consciousness. Thus, these differences might not be indicative that Muslim female students exhibit more spiritual and religious dispositions and/or patterns of religiosity than Muslim male students, but rather that Muslim female and male students differ in terms of the way they internalise and express their religious and spiritual learning and views.

These results, although based on preliminary statistical analysis, highlight important areas for future research on religiosity, spirituality and positive development among Muslim youth, and emphasise the importance of using diverse samples to enhance the validity of existing measurements.

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